



# ECONOMIC IMPACT ANALYSIS FOR MISSOURI

## SMOOTH ROADS INITIATIVE - FY2005 PROJECTS



**Smoother, Safer, Sooner**  
**Amendment 3**



The Smooth Roads Initiative (Amendment 3) will provide thousands of miles of smooth roads on Missouri's most heavily traveled highways at a cost of \$210.888 million in fiscal year 2005.

Over 10 years, every dollar of highway investment in this project returns:

- \$0.23 in new net general revenues to the State of Missouri totaling \$48.2 million
- \$2.78 in new personal income to Missourians totaling \$586.7 million
- \$4.62 in new value-added (GSP) to Missouri's economy totaling \$973.8 million
- \$8.10 in new economic activity (output) to Missouri's economy totaling \$1.7 billion

On average each year, the project creates 1,770 new jobs annually paying an average wage of \$28,265 per job, generates \$4.8 million in new net general revenues annually, \$58.7 million in new personal income annually, \$97.4 million in new value-added to the economy annually, and \$170.8 million annually in new economic activity.

### CUMULATIVE ECONOMIC IMPACT ACROSS MISSOURI

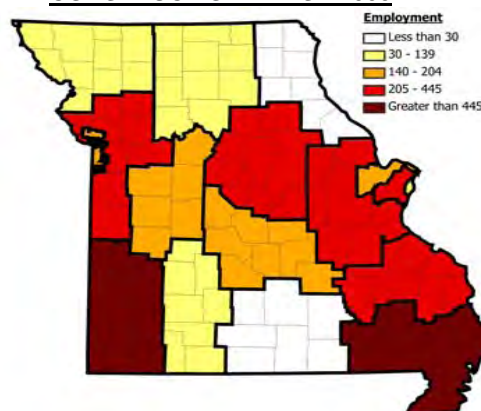
	Benefit Ratio	10-Year Total
CUMULATIVE NET GENERAL REVENUE	0.23 : 1.00	\$48.244 million
CUMULATIVE PERSONAL INCOME	2.78 : 1.00	\$586.709 million
CUMULATIVE VALUE-ADDED / GSP	4.62 : 1.00	\$973.804 million
CUMULATIVE ECONOMIC OUTPUT	8.10 : 1.00	\$1,707.963 million

### AVERAGE ANNUAL ECONOMIC IMPACT ACROSS MISSOURI

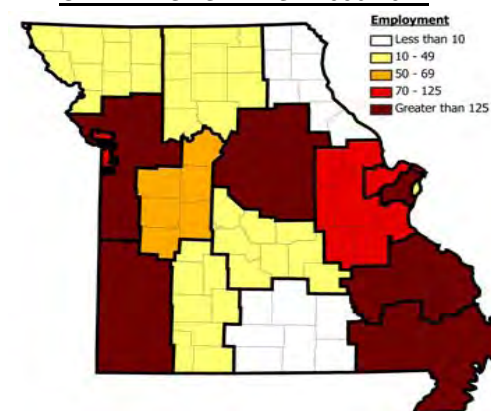
ANNUAL EMPLOYMENT	1,770 at \$28,265 per job
ANNUAL NET GENERAL REVENUE	\$4.824 million
ANNUAL PERSONAL INCOME	\$58.671 million
ANNUAL VALUE-ADDED / GSP	\$97.380 million
ANNUAL ECONOMIC OUTPUT	\$170.796 million



### CONSTRUCTION PHASE 2005



### OPERATIONS PHASE 2006-2014



MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT



MISSOURI ECONOMIC RESEARCH & INFORMATION CENTER



# ECONOMIC IMPACT ANALYSIS FOR MISSOURI

Date Completed 26-Sep-05  
Requested by E. Perry MoDOT

## Smooth Roads Initiative - FY2005 Projects

Across Missouri



**Smoother, Safer, Sooner**  
**Amendment 3**

### 10-YEAR BENEFIT-COST CUMULATIVE IMPACT PER DOLLAR OF HIGHWAY PROJECT INVESTMENT

	Benefit Ratio	10-Year Total
NET GENERAL REVENUE	0.23 : 1.00	\$48.244 million
PERSONAL INCOME	2.78 : 1.00	\$586.709 million
VALUE-ADDED / GSP	4.62 : 1.00	\$973.804 million
ECONOMIC OUTPUT	8.10 : 1.00	\$1,707.963 million

### ANNUAL AVERAGE ECONOMIC IMPACT

1,770 new JOBS each year paying an avg wage of	\$28,265
\$4.824 million new NET GENERAL REVENUES each year	
\$58.671 million new PERSONAL INCOME each year	
\$97.380 million new VALUE-ADDED / GSP each year	
\$170.796 million new ECONOMIC OUTPUT each year	

### ANNUAL ECONOMIC IMPACTS (2005\$)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Employment	4,140	800	1,087	1,316	1,494	1,631	1,732	1,791	1,838	1,872	1,878	1,879
Population	387	465	570	682	799	917	1,034	1,145	1,255	1,357	1,453	1,543
Wage and Salary Income	\$104,492,188	\$25,001,960	\$31,639,971	\$37,440,742	\$42,496,435	\$46,765,705	\$50,301,089	\$52,607,253	\$54,164,511	\$55,389,104	\$55,699,718	\$55,881,330
Total Personal Income	\$116,683,960	\$27,715,177	\$35,966,119	\$43,157,103	\$49,572,251	\$55,146,076	\$59,942,132	\$63,474,837	\$66,298,648	\$68,752,251	\$70,288,575	\$71,769,383
Value-Added/Gross State Product	\$167,536,156	\$42,193,446	\$58,966,604	\$73,166,791	\$85,331,402	\$95,720,988	\$104,514,682	\$110,767,975	\$115,620,792	\$119,985,070	\$122,427,762	\$124,837,886
Total Economic Output	\$316,540,416	\$71,587,184	\$102,006,851	\$127,150,302	\$148,483,153	\$166,331,094	\$180,694,127	\$190,497,468	\$198,802,624	\$205,870,148	\$209,713,318	\$213,198,226

### ANNUAL FISCAL IMPACTS (2005\$)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
General Revenues	\$8,218,278	\$3,224,555	\$4,005,562	\$4,621,430	\$5,147,748	\$5,598,432	\$5,977,350	\$6,259,134	\$6,475,891	\$6,667,451	\$6,778,384	\$6,875,317
General Expenditures	\$1,332,521	(\$453,379)	(\$515,855)	(\$627,624)	(\$779,628)	(\$960,482)	(\$1,160,778)	(\$1,383,583)	(\$1,596,425)	(\$1,806,695)	(\$2,018,801)	(\$2,217,426)
Net General Revenues	\$9,550,799	\$2,771,175	\$3,489,707	\$3,993,806	\$4,368,120	\$4,637,949	\$4,816,572	\$4,875,552	\$4,879,466	\$4,860,756	\$4,759,582	\$4,657,891
Project Investments	(\$210,888,000)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

### CUMULATIVE BENEFIT-COST (2005\$)

	1-YEAR	2-YEARS	3-YEARS	4-YEARS	5-YEARS	6-YEARS	7-YEARS	8-YEARS	9-YEARS	10-YEARS	11-YEARS	12-YEARS
Cumulative Net General Revenues	\$9,550,799	\$12,321,975	\$15,811,682	\$19,805,487	\$24,173,608	\$28,811,557	\$33,628,129	\$38,503,681	\$43,383,146	\$48,243,902	\$53,003,485	\$57,661,376
Net General Revenue Benefit Ratio	0.05	0.06	0.07	0.09	0.11	0.14	0.16	0.18	0.21	0.23	0.25	0.27
Cumulative Total Personal Income	\$116,683,960	\$144,399,137	\$180,365,256	\$223,522,360	\$273,094,610	\$328,240,686	\$388,182,818	\$451,657,655	\$517,956,303	\$586,708,553	\$656,997,128	\$728,766,511
Personal Income Benefit Ratio	0.55	0.68	0.86	1.06	1.29	1.56	1.84	2.14	2.46	2.78	3.12	3.46
Cumulative Gross State Product	\$167,536,156	\$209,729,602	\$268,696,206	\$341,862,997	\$427,194,399	\$522,915,386	\$627,430,068	\$738,198,043	\$853,818,835	\$973,803,905	\$1,096,231,667	\$1,221,069,553
Gross State Product Benefit Ratio	0.79	0.99	1.27	1.62	2.03	2.48	2.98	3.50	4.05	4.62	5.20	5.79
Cumulative Output	\$316,540,416	\$388,127,600	\$490,134,451	\$617,284,752	\$765,767,905	\$932,098,999	\$1,112,793,126	\$1,303,290,593	\$1,502,093,217	\$1,707,963,365	\$1,917,676,683	\$2,130,874,909
Output Benefit Ratio	1.50	1.84	2.32	2.93	3.63	4.42	5.28	6.18	7.12	8.10	9.09	10.10

### ASSUMPTIONS

Design, Engineering & Inspection Costs: \$13,704,000 in 2005. (Professional-Technical Sales)  
 Right of Way Costs: None. (Dividends-Interest-Rents)  
 Construction Costs: \$197,169,000 in 2005. (Construction Sales)  
 Other Costs: \$15,000 in 2005. (State Govt Spending)  
 Reduction in Business Production Costs: \$62,165,776 reduction per annum in 2006-2016. (Production Costs)  
 Project Investment: (a) MoDOT \$210,888,000 split into 80% federal and 20% dedicated general revenue in 2005.  
 Impacts occur in the across Missouri. Estimated using REMI-70105-Regional Model.

# Smooth Roads Initiative - FY2005 Projects

## ANNUAL FISCAL IMPACTS (2005\$)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>State General Revenues</b>												
Individual Income Tax	\$3,851,530	\$1,461,820	\$1,747,603	\$1,964,404	\$2,148,625	\$2,304,708	\$2,436,775	\$2,528,297	\$2,601,261	\$2,664,966	\$2,696,370	\$2,725,504
Corporate Income Tax	\$2,513,932	\$891,640	\$1,235,300	\$1,514,400	\$1,749,554	\$1,948,159	\$2,110,264	\$2,235,497	\$2,325,752	\$2,401,884	\$2,455,245	\$2,497,918
Direct Sales Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Indirect Sales & Use Tax	\$1,546,506	\$737,125	\$859,867	\$955,347	\$1,039,284	\$1,113,653	\$1,178,001	\$1,225,281	\$1,262,375	\$1,298,465	\$1,311,713	\$1,324,381
Other Tax	\$228,027	\$90,241	\$105,782	\$117,558	\$127,828	\$136,784	\$144,667	\$150,550	\$155,564	\$160,169	\$163,007	\$165,840
Other Charges & Revenues	\$78,282	\$43,729	\$57,011	\$69,722	\$82,457	\$95,128	\$107,643	\$119,509	\$130,938	\$141,967	\$152,049	\$161,674
Other Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Revenues</b>	<b>\$8,218,278</b>	<b>\$3,224,555</b>	<b>\$4,005,562</b>	<b>\$4,621,430</b>	<b>\$5,147,748</b>	<b>\$5,598,432</b>	<b>\$5,977,350</b>	<b>\$6,259,134</b>	<b>\$6,475,891</b>	<b>\$6,667,451</b>	<b>\$6,778,384</b>	<b>\$6,875,317</b>
<b>State General Expenditures</b>												
Higher Education	(\$56,849)	(\$68,270)	(\$84,987)	(\$102,909)	(\$121,995)	(\$141,654)	(\$161,398)	(\$180,923)	(\$199,235)	(\$216,879)	(\$233,385)	(\$248,622)
Elementary & Secondary Education	(\$169,788)	(\$203,760)	(\$253,651)	(\$307,145)	(\$364,108)	(\$422,781)	(\$481,711)	(\$539,986)	(\$594,641)	(\$647,301)	(\$696,567)	(\$742,042)
Social Services	\$1,790,750	\$109,336	\$184,645	\$220,609	\$225,919	\$207,099	\$169,546	\$107,676	\$45,774	(\$19,065)	(\$95,119)	(\$168,153)
Health & Mental Health	(\$39,909)	(\$51,768)	(\$64,443)	(\$78,035)	(\$92,507)	(\$107,413)	(\$122,385)	(\$137,191)	(\$151,077)	(\$164,456)	(\$176,972)	(\$188,526)
Transportation	(\$796)	(\$908)	(\$1,131)	(\$1,369)	(\$1,623)	(\$1,883)	(\$2,146)	(\$2,406)	(\$2,649)	(\$2,885)	(\$3,104)	(\$3,306)
Public Safety & Corrections	(\$37,402)	(\$46,405)	(\$57,767)	(\$69,951)	(\$82,924)	(\$96,286)	(\$109,707)	(\$122,979)	(\$135,426)	(\$147,419)	(\$158,639)	(\$168,997)
Natural Resources & Conservation	(\$581)	(\$685)	(\$852)	(\$1,032)	(\$1,222)	(\$1,420)	(\$1,618)	(\$1,813)	(\$1,996)	(\$2,174)	(\$2,339)	(\$2,492)
Administration & Other Departments	(\$147,089)	(\$182,667)	(\$227,395)	(\$275,351)	(\$326,419)	(\$379,018)	(\$431,847)	(\$484,090)	(\$533,088)	(\$580,296)	(\$624,462)	(\$665,231)
Debt Interest	(\$5,815)	(\$8,253)	(\$10,274)	(\$12,441)	(\$14,748)	(\$17,125)	(\$19,511)	(\$21,873)	(\$24,086)	(\$26,219)	(\$28,214)	(\$30,056)
Other Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Expenditures</b>	<b>\$1,332,521</b>	<b>(\$453,379)</b>	<b>(\$515,855)</b>	<b>(\$627,624)</b>	<b>(\$779,628)</b>	<b>(\$960,482)</b>	<b>(\$1,160,778)</b>	<b>(\$1,383,583)</b>	<b>(\$1,596,425)</b>	<b>(\$1,806,695)</b>	<b>(\$2,018,801)</b>	<b>(\$2,217,426)</b>
<b>Net State General Revenues</b>	<b>\$9,550,799</b>	<b>\$2,771,175</b>	<b>\$3,489,707</b>	<b>\$3,993,806</b>	<b>\$4,368,120</b>	<b>\$4,637,949</b>	<b>\$4,816,572</b>	<b>\$4,875,552</b>	<b>\$4,879,466</b>	<b>\$4,860,756</b>	<b>\$4,759,582</b>	<b>\$4,657,891</b>

# Smooth Roads Initiative - FY2005 Projects

## ANNUAL INDUSTRY IMPACTS (2005\$)

Employment	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Farm	0	0	0	0	0	0	0	0	0	0	0	0
State & Local Government	26	31	38	45	53	61	69	77	84	91	97	103
Federal Civilian Government	0	0	0	0	0	0	0	0	0	0	0	0
Federal Military Government	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture, Forestry, & Fishing	1	48	85	115	138	155	168	176	181	184	185	185
Mining	0	1	3	3	4	4	5	5	5	5	5	5
Utilities	5	2	2	3	3	3	3	3	3	3	3	3
Construction	2,554	103	115	127	138	146	151	154	155	155	153	150
Manufacturing	77	50	81	105	123	137	146	145	149	153	148	145
Wholesale Trade	50	27	41	50	57	62	65	67	68	68	68	67
Retail Trade	352	138	166	187	203	215	223	228	231	232	231	228
Transportation & Warehousing	20	9	13	16	18	20	21	22	23	23	23	23
Information	18	8	10	12	13	14	15	15	16	16	16	16
Finance & Insurance	60	68	110	143	167	186	199	208	213	217	219	219
Real Estate, Rental, & Leasing	52	33	48	60	69	76	82	85	88	89	90	90
Professional & Technical Services	355	39	59	74	87	96	104	109	113	117	119	120
Management of Companies & Enterprises	12	6	9	11	13	14	15	15	15	16	16	16
Administrative & Waste Remed Services	118	50	78	101	119	133	144	151	157	162	164	166
Educational Services	24	12	14	16	18	19	20	20	21	21	21	21
Health Care & Social Assistance	89	27	37	45	51	56	60	63	66	68	70	72
Arts, Entertainment, & Recreation	33	20	28	35	40	43	46	48	50	51	51	51
Accommodation & Food Services	158	75	89	99	107	113	117	120	121	121	120	118
Other Services	136	51	61	67	73	76	79	80	80	80	79	78
<b>Total</b>	<b>4,140</b>	<b>799</b>	<b>1,086</b>	<b>1,316</b>	<b>1,494</b>	<b>1,631</b>	<b>1,732</b>	<b>1,791</b>	<b>1,838</b>	<b>1,872</b>	<b>1,878</b>	<b>1,879</b>

## Labor & Proprietor Income

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Farm	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
State & Local Government	\$2,336,502	\$2,423,583	\$2,732,112	\$3,137,244	\$3,607,143	\$4,112,714	\$4,633,857	\$5,136,334	\$5,559,934	\$5,946,360	\$6,304,387	\$6,615,280
Federal Civilian Government	\$201,225	\$170,511	\$161,866	\$163,083	\$167,462	\$174,731	\$181,752	\$184,123	\$182,832	\$177,789	\$170,369	\$160,758
Federal Military Government	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Agriculture, Forestry, & Fishing	\$48,906	\$1,423,674	\$2,574,407	\$3,502,932	\$4,248,351	\$4,840,955	\$5,312,817	\$5,673,886	\$5,882,449	\$6,035,301	\$6,141,010	\$6,214,939
Mining	\$47,266	\$57,401	\$85,977	\$107,176	\$123,839	\$136,838	\$146,752	\$154,048	\$157,610	\$159,606	\$160,133	\$159,780
Utilities	\$555,277	\$270,365	\$312,332	\$347,608	\$377,115	\$399,461	\$415,696	\$423,819	\$427,605	\$427,653	\$421,719	\$414,878
Construction	\$93,776,703	\$4,854,641	\$5,431,394	\$6,070,967	\$6,647,424	\$7,127,357	\$7,507,503	\$7,749,039	\$7,879,149	\$7,935,496	\$7,895,473	\$7,808,876
Manufacturing	\$5,655,289	\$3,759,637	\$5,431,394	\$6,805,953	\$7,925,675	\$8,853,620	\$9,532,974	\$9,674,568	\$10,017,466	\$10,320,054	\$10,154,874	\$10,122,090
Wholesale Trade	\$3,118,515	\$1,748,548	\$2,401,085	\$2,923,058	\$3,331,068	\$3,647,887	\$3,880,650	\$4,008,536	\$4,088,004	\$4,130,878	\$4,123,955	\$4,101,473
Retail Trade	\$9,532,928	\$4,173,533	\$4,959,932	\$5,605,269	\$6,155,855	\$6,615,373	\$6,996,633	\$7,268,652	\$7,402,164	\$7,496,473	\$7,496,239	\$7,463,174
Transportation & Warehousing	\$1,345,634	\$719,881	\$905,537	\$1,069,596	\$1,212,045	\$1,331,327	\$1,427,817	\$1,488,089	\$1,526,044	\$1,553,872	\$1,561,107	\$1,562,771
Information	\$1,349,449	\$647,472	\$795,194	\$922,065	\$1,029,870	\$1,120,808	\$1,192,441	\$1,237,556	\$1,255,469	\$1,268,206	\$1,266,800	\$1,263,305
Finance & Insurance	\$3,356,934	\$3,027,143	\$4,647,143	\$5,945,655	\$6,998,792	\$7,846,493	\$8,517,782	\$9,021,590	\$9,327,886	\$9,561,537	\$9,708,844	\$9,809,819
Real Estate, Rental, & Leasing	\$1,126,289	\$650,042	\$911,692	\$1,121,142	\$1,295,776	\$1,441,429	\$1,561,675	\$1,651,533	\$1,712,355	\$1,758,724	\$1,788,875	\$1,812,444
Professional & Technical Services	\$16,633,987	\$2,329,218	\$3,257,378	\$4,045,534	\$4,718,364	\$5,284,888	\$5,759,573	\$6,105,063	\$6,376,297	\$6,606,399	\$6,757,729	\$6,895,540
Management of Companies & Enterprises	\$1,204,491	\$665,224	\$886,386	\$1,067,819	\$1,214,641	\$1,328,801	\$1,416,356	\$1,455,480	\$1,489,709	\$1,514,781	\$1,512,117	\$1,510,844
Administrative & Waste Remed Services	\$2,829,552	\$1,248,230	\$1,825,664	\$2,314,718	\$2,731,753	\$3,086,220	\$3,387,791	\$3,606,886	\$3,765,247	\$3,899,339	\$3,981,737	\$4,053,103
Educational Services	\$841,141	\$458,042	\$541,225	\$610,118	\$669,200	\$719,557	\$762,212	\$788,783	\$807,087	\$823,168	\$829,909	\$834,023
Health Care & Social Assistance	\$3,555,298	\$1,435,090	\$1,750,886	\$2,044,097	\$2,329,757	\$2,602,025	\$2,842,535	\$3,042,987	\$3,198,971	\$3,346,801	\$3,470,264	\$3,587,900
Arts, Entertainment, & Recreation	\$855,923	\$473,692	\$600,271	\$704,547	\$793,823	\$867,973	\$930,660	\$976,285	\$999,775	\$1,018,248	\$1,024,956	\$1,028,213
Accommodation & Food Services	\$2,543,926	\$1,343,996	\$1,583,548	\$1,773,476	\$1,939,445	\$2,078,251	\$2,192,486	\$2,274,287	\$2,304,141	\$2,321,035	\$2,312,413	\$2,295,075
Other Services	\$3,392,696	\$1,480,871	\$1,730,368	\$1,934,337	\$2,110,802	\$2,258,877	\$2,381,197	\$2,463,977	\$2,491,997	\$2,506,342	\$2,492,653	\$2,473,261
<b>Total</b>	<b>\$154,307,931</b>	<b>\$33,360,794</b>	<b>\$43,525,791</b>	<b>\$52,216,394</b>	<b>\$59,628,199</b>	<b>\$65,875,583</b>	<b>\$70,981,161</b>	<b>\$74,385,521</b>	<b>\$76,852,191</b>	<b>\$78,808,064</b>	<b>\$79,575,562</b>	<b>\$80,187,548</b>